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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/737,928	12/15/2000	Steven Ray Stopper	15088	1071
23556	7590	04/02/2004	EXAMINER	
KIMBERLY-CLARK WORLDWIDE, INC. 401 NORTH LAKE STREET NEENAH, WI 54956			GOFF II, JOHN L	
			ART UNIT	PAPER NUMBER
			1733	
DATE MAILED: 04/02/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/737,928

Applicant(s)

STOPPER, STEVEN RAY

Examiner

John L. Goff

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 January 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 18-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 18-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. This action is in response to the amendment received on 1/13/04.
2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Rejections - 35 USC § 103

3. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over DE 19653608 (See Derwent abstract and English translation) in view of Griesbach (U.S. Patent 5,506,277) and any one of WO 98/58799, Kobylivker al. (U.S. Patent 6,002,064), McBride (U.S. Patent 4,880,422), or Winter (U.S. Patent 4,765,999), and either one of Cloeren (U.S. Patent 4,152,387) or Cloeren (4,553,308).

DE 19653608 is directed to forming hygiene articles including diapers, training pants (i.e. diaper pants), etc. by simultaneously co-extruding a film and a foam layer to form a multilayer article. DE 19653608 teaches the foam layer is soft to the touch so that it can be worn on the skin, i.e. the (soft) foam layer is the interior/inside layer of the multilayer. DE 19653608 further teaches the film and foam layer may be gas permeable (i.e. breathable) to water vapor yet retain, i.e. hold/absorb, liquid water, and the foam layer may comprise thermoplastic foam (See example 2, lines 7-10 and page 2, lines 17-22 and page 3, lines 6-7 and page 4, lines 14-25 and page 5, lines 11-14 and 19-23 and page 8, lines 1-14 of the translation cited on the form PTO-892 of paper no. 8). DE 19653608 is silent as to including superabsorbent in the (thermoplastic) foam. However, DE 19653608 teaches any conventional material may be added to the foam to

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adjust the properties of the multilayer (Column 5, lines 6-10). It would have been obvious to one of ordinary skill in the art at the time the invention was made to include in the foam layer taught by DE 19653608 superabsorbent, as it was well known and conventional in the art to include superabsorbent particles in a foam mixture for extrusion into a foam layer usable in a diaper to provide the foam layer with increased (i.e. super) absorbing properties as shown for example by Griesbach.

As to the particular extruding conditions, DE 19653608 is silent as to a specific teaching on extruding the film and foam layer using a cast extrusion technique. It is noted DE 19653608 suggests extruding the film and foam layer using a blown extrusion technique (See page 4, lines 12-14). However, DE 19653608 does not exclude extruding the film and foam layer using a cast extrusion technique. Furthermore, cast and blown extrusion techniques are well known functional equivalents in the extrusion art. It would have been obvious to one of ordinary skill in the art at the time the invention was made to co-extrude the film and foam layer taught by DE 19653608 using a blown or cast extrusion technique as both techniques are conventional extrusion techniques in the art as shown for example by any one of WO 98/58799, Kobylivker al., McBride, or Winter and only the expected results would be achieved. It is further noted DE 19653608 does not expressly recite using a multiple-manifold die. However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use as the extrusion die in the process taught by DE 19653608 a multiple-manifold die as it was well known and conventional in the art to use these dies to extrude multilayer articles as shown for example by either Cloeren '387 or Cloeren '308.

The background of Griesbach discloses it is well known in the art to include superabsorbent particles as conventional additive materials in thermoplastic foam layers used as the absorbent core in diapers, sanitary napkins, etc. (Column 1, lines 10-24). Griesbach further shows the superabsorbent particles may be included in the foam prior to extrusion (Column 3, lines 30-33). WO 98/58799 is directed to co-extruded multilayer films for use in personal care products. WO 98/58799 teach the films are formed of a polyolefin (Page 4), and the films are co-extruded using conventional film forming techniques such as cast and blown film forming processes (Page 2 and Page 4 and Page 8). Kobylivker et al. are directed to extruded barrier films, including multilayer films, for use in disposable items. Kobylivker al. teach the films are formed of a polyolefin (Column 1, lines 49-52), and the multilayer films are prepared by cast or blown film co-extrusion (Column 7, lines 41-43). McBride is directed to a backsheet for use in a diaper. McBride teaches the backsheet comprises polyolefins (Column 1, lines 14-17), and the backsheet is blown-film or cast-film constructed (Column 2, lines 46-49). Winter is directed to a multilayer bag formed of polyester film. Winter teaches forming the film using conventional blown or cast co-extrusion techniques (Column 2, lines 13-19). Cloeren '387 is directed to a multiple-manifold die used to extrude multilayer articles wherein the die allows layers having different thickness and diverse rheological properties to be extruded (Column 1, lines 30-39, 46-47, 51-53, and 56-61 and Column 2, lines 57-63). Cloeren '308 is directed to a multiple-manifold die used to extrude multilayer articles (Column 1, lines 11-16).

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4. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over DE 19653608, Griesbach, WO 98/58799, Kobylivker al., McBride, Winter, Cloeren '387, and Cloeren '308 as applied above in paragraph 3, and further in view of Van Gompel al. (U.S. Patent 4,938,753).

DE 19653608, Griesbach, WO 98/58799, Kobylivker al., McBride, Winter, Cloeren '387, and Cloeren '308 as applied above teach all of the limitations in claim 19 except for a teaching of laminating a nonwoven layer to either side of the multilayer article. However, it is noted DE 19653608 teaches the extruded multilayer articles can be used to form diapers, training pants, etc. such that it would have been obvious to one of ordinary skill in the art at the time the invention was made to laminate to the exterior and/or interior of the multilayer article taught by DE 19653608 as modified by Griesbach, any one of WO 98/58799, Kobylivker al., McBride, or Winter and either Cloeren '387 or Cloeren '308 to a nonwoven layer to provide a cloth like outer or inner cover for contacting the wearers skin as was well known and conventional in the art as shown for example by Van Gompel al.

Van Gompel et al. are directed to a training pant comprising an absorbent multilayer core. Van Gompel et al. teach the training pant has an exterior, outer cover formed of a woven or nonwoven to provide a cloth-like texture and an interior, bodyside liner formed of a woven or nonwoven for contacting the users skin. Van Gompel al. teach a method for forming the training pant comprising obtaining a substantially rectangular multilayer article, forming leg cutouts in the article, forming a seam by joining two edges of the article, and sealing the edges ultrasonically (Figures 1 and 14 and Column 1, lines 23-27 and 42-48 and Column 5, lines 14-16 and Column 12, lines 22-25 and 30-34).

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5. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over DE 19653608, Griesbach, WO 98/58799, Kobylivker al., McBride, Winter, Cloeren '387, and Cloeren '308 as applied above in paragraph 3, and further in view of King (U.S. Patent 5,961,509).

DE 19653608, Griesbach, WO 98/58799, Kobylivker al., McBride, Winter, Cloeren '387, and Cloeren '308 as applied above teach all of the limitations in claim 20 except for a teaching of thermoforming the multilayer article. However, it is noted DE 19653608 teach the extruded multilayer articles can be used to form diapers, training pants, etc. (i.e. articles having an approximately rectangular shape). It would have been obvious to one of ordinary skill in the art at the time the invention was made to thermoform the multilayer article (e.g. diaper, training pant, etc.) taught by DE 19653608 as modified by Griesbach, any one of WO 98/58799, Kobylivker al., McBride, or Winter and either Cloeren '387 or Cloeren '308 into a three-dimensional shape as this was a well known technique for forming a wearable article such as those taught by DE 19653608 that fit closely to the contours of the body at the point of application as shown for example by King.

King is directed to absorbent articles having a multilayer structure wherein the articles are thermoformed into a three dimensional shape to form articles that fit more closely to the contours of the body at the point of application (Figures 1-6 and Column 1, lines 5-10, 17-22, and 49-59 and Column 2, lines 5-9 and Column 4, lines 14-25, 52-53, and 59-67 and Column 5, lines 1-3).

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6. Claims 21 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over DE 19653608, Griesbach, WO 98/58799, Kobylivker al., McBride, Winter, Cloeren '387, Cloeren '308, and King as applied above in paragraph 5, and further in view of Van Gompel al.

DE 19653608, Griesbach, WO 98/58799, Kobylivker al., McBride, Winter, Cloeren '387, Cloeren '308, and King as applied above teach all of the limitations in claims 21 and 22 except for a teaching of joining and ultrasonically sealing the edges of the multilayer article. However, it is noted DE 19653608 teach the extruded multilayer articles can be used to form training pants. It would have been obvious to one of ordinary skill in the art at the time the invention was made to form the training pants taught by DE 19653608 as modified by Griesbach, any one of WO 98/58799, Kobylivker al., McBride, or Winter and either Cloeren '387 or Cloeren '308 and King by joining and ultrasonically sealing the edges of the multilayer as this is a well known and conventional process for forming training pants as shown for example by Van Gompel al.

7. Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over DE 19653608 in view of Griesbach, any one of WO 98/58799, Kobylivker al., McBride or Winter, either one of Cloeren '387 or Cloeren '308, and King.

DE 19653608 is described above. DE 19653608 is silent as to including superabsorbent in the (thermoplastic) foam. However, DE 19653608 teaches any conventional material may be added to the foam to adjust the properties of the multilayer (Column 5, lines 6-10). It would have been obvious to one of ordinary skill in the art at the time the invention was made to include in the foam layer taught by DE 19653608 superabsorbent, as it was well known and conventional in the art to include superabsorbent particles in a foam mixture for extrusion into a

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foam layer usable in a diaper to provide the foam layer with increased (i.e. super) absorbing properties as shown for example by Griesbach.

As to the particular extruding conditions, DE 19653608 is silent as to a specific teaching on extruding the film and foam layer using a cast extrusion technique. It is noted DE 19653608 suggests extruding the film and foam layer using a blown extrusion technique (See page 4, lines 12-14). However, DE 19653608 does not exclude extruding the film and foam layer using a cast extrusion technique. Furthermore, cast and blown extrusion techniques are well known functional equivalents in the extrusion art. It would have been obvious to one of ordinary skill in the art at the time the invention was made to co-extrude the film and foam layer taught by DE 19653608 using a blown or cast extrusion technique as both techniques are conventional extrusion techniques in the art as shown for example by any one of WO 98/58799, Kobylivker al., McBride, or Winter and only the expected results would be achieved. It is further noted DE 19653608 does not expressly recite using a multiple-manifold die. However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use as the extrusion die in the process taught by DE 19653608 a multiple-manifold die as it was well known and conventional in the art to use these dies to extrude multilayer articles as shown for example by either Cloeren '387 or Cloeren '308.

As to forming the end use product, i.e. forming leg cutouts and thermoforming the multilayer, DE 19653608 is silent as to further processing of the multilayer. However, it is noted DE 19653608 teach the extruded multilayer articles can be used to form diapers, training pants, etc. (i.e. articles having an approximately rectangular shape having leg cutouts). It would have been obvious to one of ordinary skill in the art at the time the invention was made to cut and

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thermoform the multilayer article (e.g. diaper) taught by DE 19653608 into a three-dimensional shape as this was a well known technique for forming a wearable article such as those taught by DE 19653608 that fits closely to the contours of the body at the point of application, i.e. conforms to the users movements, as shown for example by King (See in particular Figure 6).

8. Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over DE 19653608, Griesbach, WO 98/58799, Kobylivker al., McBride, Winter, Cloeren '387, Cloeren '308, and King as applied above in paragraph 7, and further in view of Van Gompel al.

DE 19653608, Griesbach, WO 98/58799, Kobylivker al., McBride, Winter, Cloeren '387, Cloeren '308 and King as applied above teach all of the limitations in claim 24 except for a teaching of laminating a nonwoven layer to either side of the multilayer article. However, it is noted DE 19653608 teaches the extruded multilayer articles can be used to form diapers, training pants, etc. such that it would have been obvious to one of ordinary skill in the art at the time the invention was made to laminate to the exterior and/or interior of the multilayer article taught by DE 19653608 as modified by Griesbach, any one of WO 98/58799, Kobylivker al., McBride, or Winter, either Cloeren '387 or Cloeren '308, and King a nonwoven layer to provide a cloth like outer or inner cover for contacting the wearers skin as was well known and conventional in the art as shown for example by Van Gompel al.

Response to Arguments

9. Applicant's arguments with respect to claims 18-24 have been considered but are moot in view of the new ground(s) of rejection.

Applicant argues, "The materials described in the German reference do not contemplate an absorbent function, as claimed, and as further emphasized by the addition of superabsorbent in the claims." and "The concern of the inventor, as stated in the German reference on page 5, line 15, was to create a film that is soft to the touch. Such materials are to be used for a variety of end-products, including "rain-proof clothing". See specifically page 5, line 23. Therefore, it is respectfully submitted that there is absolutely no suggestion in the reference for an absorbent foam, absorbent function, or for the use of superabsorbent materials. The Examiner merely asserted in the action that such foam is absorbent, but fails to provide support for such assertion. Since the reference teaches the opposite, it cannot be used as a base reference for rejecting the amended claims." It is noted DE 19653608 teaches forming hygiene articles including diapers, training pants, etc. (i.e. absorbent articles) having a film and foam layer, the foam layer being soft to the touch so that it can be worn on/next to the skin. Furthermore, DE 19653608 teaches the film and foam layer may be gas permeable (i.e. breathable) to water vapor yet retain, i.e. hold/absorb, liquid water. Thus, DE 19653608 clearly teaches the forming articles having an absorbent function.

Applicant further argues, "Applicant again respectfully asserts that multi-manifold cast dies and blown dies are functionally different apparatus, and while both may be used to form films, the type of die used may determine both the properties of the produced film, and be determined in order to accommodate differences in the starting raw materials." As set forth in

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the previous office action “While it is noted cast and blown extrusion techniques are different in that each may have their own particular advantages and disadvantages, the use of either technique for extruding a multilayer is very well known in the art, i.e. they are functionally equivalent, as shown by any one of WO 98/58799, Kobylivker al., McBride, or Winter such that the choice of which technique to use would have been obvious and well within the ordinary skill of one in the art.”

Applicant further argues, “Further, it is not believed that either of the two references cited, that is Cloeren 4,152,387 and Cloeren 4,533,308 have any teaching that relates to or suggests use of such apparatus for the manufacture of personal care products.” Cloeren ‘387 and Cloeren ‘308 are cited only to show the well known and conventional use of multi-manifold dies to extrude multilayer articles.

Applicant further argues, “While the German reference describes the use of such “foil” materials in products of personal hygiene, it describes the use of foam on the surface of the foil explicitly to provide a pleasing textile touch. The foam and foil combination is designed to replace the nonwoven fabric/foil combinations also described in the reference. Such nonwoven fabric/foil combinations are designed to “impart to the entire product a cloth-like appearance”, See in this regard, page 2, lines 13-25. It is respectfully submitted that such “entire product cloth-like appearance” refers to the outer cover of the product. Given that such cloth-like appearance is already on the material as a result of the foam, one would not be motivated by such reference to put a second cloth-like outercover over the already pleasantly feeling foam layer. At least for these reasons, such rejection should be withdrawn.” The claims are not commensurate in scope with this argument. Claims 19 and 24 only require providing a nonwoven layer to either

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side of the article. As noted by applicant DE 19653608 teaches the foam on the surface of the foil provides a pleasing textile touch. Further, DE 19653608 teaches the foam layer is soft to the touch so that it can be worn on/next to the skin. DE 19653608 is silent as to the outer cover, i.e. the foil, having a pleasing textile touch. Van Gompel et al. is cited to show the conventional use of providing the outer cover (in the case of DE 19653608 that is the foil layer) with a nonwoven layer to provide the cover with a cloth-like texture. Van Gompel et al. further shows the conventional use of providing the inside cover (in the case of DE 19653608 that the foam layer) with a nonwoven layer to provide a more comfortable layer for contacting the users skin.

Conclusion

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

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11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **John L. Goff** whose telephone number is **(571) 272-1216**. The examiner can normally be reached on M-F (7:15 AM - 3:45 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on (571) 272-1226. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



John L. Goff
March 22, 2004



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